

REMARKS

An Excess Claims Fee letter and fee are attached hereto.

Claims 1-22 are all the claims presently pending in the application. The claims have been amended to more particularly define the invention by correcting antecedent basis issues. New claims 21 and 22 are added.

It is noted that the claim amendments are made only for more particularly pointing out the invention, and not for distinguishing the invention over the prior art, narrowing the claims or for any statutory requirements of patentability. Further, Applicant specifically states that no amendment to any claim herein should be construed as a disclaimer of any interest in or right to an equivalent of any element or feature of the amended claim.

Applicant gratefully acknowledges that claims 4, 6-7, 11, 13, 15-17, and 19-20 would be allowable if rewritten in independent form. However, Applicant respectfully submits that all of the claims are allowable, once properly understood, and declines to rewrite these claims in independent format at this time.

Claims 1-3, 5, 8-10, and 12 stand rejected under 35 U.S.C. §102(e) as being anticipated by Kondo (U.S. Patent No. 6,178,193).

This rejection is respectfully traversed in the following discussion.

I. THE CLAIMED INVENTION

As described and defined by, for example, claim 1, the claimed invention is directed to a CDMA demodulation circuit including a delay profile calculating means for calculating delay profiles of received signals. A path assigning means assigns path

locations to a plurality of fingers based on the calculation result obtained in the delay profile calculating means. The plurality of fingers to which the path locations are assigned by the path assigning means, and the fingers de-spread the assigned paths. A rake combining means combines the outputs of the plurality of fingers. A reception controlling means estimates a drop cycle of a reception level from the reception level combined by the rake combining means that reduces a degradation in receiving characteristics using the estimation result.

As described beginning at line 23 of page 2, conventional methods, such as those described on pages 1-3 of the present application, and most particularly the first document JP 11-4213, can reasonably be described as measuring a current actual fading cycle. However, none of the prior art of record suggests the technique of estimating the next cycle for purpose of making adjustments in the receiving function (e.g., such as the finger assignments) before the level actually drops.

II. THE 35 USC §112, SECOND PARAGRAPH REJECTION

Claims 14 and 18 stand rejected under 35 U.S.C. §112, second paragraph. Applicant believes that the above claim amendments address this issue.

In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw this rejection.

III. THE PRIOR ART REJECTION

The Examiner alleges that Kondo teaches the claimed invention defined by claims 1-3, 5, 8-10, and 12. Applicant submits, however, that there are elements of the claimed invention which are neither taught nor suggested by Kondo.

Although the present invention may arguably have some similarities with Kondo, such as calculation of an estimation for the fading pitch, there are also basic differences.

For example, the method for maintenance of good reception quality of the present invention is quite different from that of Kondo. More specifically, in Kondo the delay profile computing unit 16 shown in Figure 1 is controlled to achieve the maintenance of good reception quality. In contrast, in the present invention, the finger path assignment control portion 7 is controlled, as shown in Figure 1.

In Kondo, the peak detector 18 in Figure 1 is controlled, not the delay profile computing unit 16. Therefore, the principle of operation of the present invention is quite different from Kondo.

Further, a key feature of the present invention, discussed at lines 9-11 of page 3, of “maintaining good reception quality by estimating a time at which the level drops due to fading and by controlling assignment of path timing to a fingers portion before the level actually drops” is not disclosed in Kondo.

Stated slightly differently, there is no mechanism in Kondo that is used to estimate the next fading cycle for use in pre-setting the receive characteristics, as required.

Thus, this running average is used in Kondo as a feedback control during fading in the oscillatory target transmission power cycle shown in Figure 4. The oscillatory nature occurs because the mobile station is constantly making 1 dB adjustments for the target transmission power during each slot and the problem addressed in Kondo is that the mobile station will not be able to keep up with these adjustments during some possible conditions during fading, as explained at lines 22-32 of column 2 and at line 49 of column 7 through line 49 of column 8. Applicant submits that this application of the running average of the relative transmission power, even if considered as an estimate of the fading

period, is not actually an application of the receive characteristics of the demodulator circuit, as clearly required by independent claims 1 and 8.

New claims 21 and 22 articulate these features of the present invention in a different articulation.

Moreover, as clearly seen in Figure 5, the technique in Kondo relies upon calculation of power relative to the average power (e.g., the running average of the number of + and – signs) to derive its version of the estimate.

In contrast, the present invention evaluates the actual reception level out of the rake combining portion to derive its version of the estimate. Therefore, because of its different method of deriving an estimate, Kondo clearly fails to teach the technique of estimating drop cycle from the level of reception in the rake combining portion, as clearly required by the independent claims 1 and 8

Hence, turning to the clear language of the claims, in Kondo there is no teaching or suggestion of: “...reception controlling means that estimates a drop cycle of a reception level from a reception level combined by said rake combining means and that reduces a degradation in receiving characteristics using an estimation result”, as required by independent claim 1. Claim 8 has similar language.

Therefore, Applicant submits that there are elements of the claimed invention that are not taught or suggest by Kondo, and the Examiner is respectfully requested to withdraw this rejection.

IV. FORMAL MATTERS AND CONCLUSION

Applicant gratefully acknowledges the Examiner for pointing out that the Declaration is defective for failing to specify the Applicant’s citizenship. A new

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Declaration is being executed and will be submitted shortly to correct this deficiency.

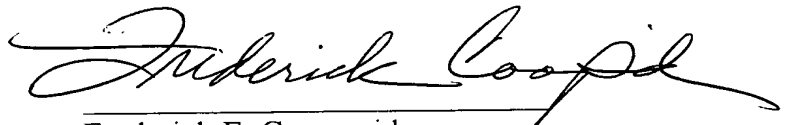
In view of the foregoing, Applicant submits that claims 1-22, all the claims presently pending in the application, are patentably distinct over the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to Attorney's Deposit Account No. 50-0481.

Respectfully Submitted,

Date: 1/27/05


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